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Type: **Parallel Talk**

Underlying event measurements at ATLAS

Friday, 8 July 2022 17:30 (15 minutes)

This talk presents ATLAS recent measurements of distributions sensitive to Underlying event, the hadronic activity observed in relationship with the hard scattering in the event. The rates and the total transverse momentum was measured for Kaons, Lambda baryons and their ratios as a function of the leading track-jet and is compared to MC predictions which in general fail to describe the data. In addition, a new measurement of charged-particle distributions as a function of Upsilon momentum and different Upsilon states is presented using the full Run-2 ATLAS dataset at center-of-mass energy of 13 TeV. The measurement benefits from the heavy-ion style approach to remove combinatorial and pileup backgrounds leading to increased sensitivity. Technical challenges of the measurement will be shown, as well as the results and their physics implications.

In-person participation

Yes

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